Optimasi Pembuatan Tepung Singkong Terfermentasi Ditinjau dari Variasi Penambahan Angka

Optimization of Fermentation Cassava Flour as Revealed by Varied Concentration Addition of Red Yeast Rice

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Abstrak

Penelitian bertujuan untuk menentukan variasi penambahan angkak yang menghasilkan tepung singkong terfermentasi dengan kandungan gizi optimum. Fermentasi dilakukan dengan angkak sebagai starter. Analisis kadar gizi tepung singkong terfermentasi meliputi pengukuran kadar air, kadar abu, kadar serat kasar, kadar lemak, kadar karbohidrat, dan kadar protein. Kadar aktivitas antioksidan dan HCN dilakukan sebagai karaketristik tambahan. Data penelitian dianalisis dengan Rancangan Acak Kelompok (RAK) dengan 5 perlakuan dan 5 kali ulangan, sebagai perlakuan adalah konsentrasi penambahan angkak yaitu 0% (kontrol), 10%, 14%, 18%, dan 22% (b/b) dan sebagai ulangan adalah waktu analisis. Kandungan gizi optimum diperoleh pada tepung singkong terfermentasi yang difermentasi dengan 14% angkak. Kadar gizi yang diperoleh adalah kadar air 8,59 ± 2,15%; kadar abu 2,35 ± 0,31%; kadar serat kasar 12,42 ± 1,72%; kadar lemak 3,24 ± 1,06%; karbohidrat 34,78 ± 4,65%; dan kadar protein 5,32 ± 0,96%. Aktivitas antioksidan tepung singkong terfermentasi sebesar 23,77% pada konsentrasi ekstrak metanol 6000 µg/ml. Uji HCN menunjukkan hasil negatif.
Kata kunci : *angkak, fermentasi, tepung singkong terfermentasi*.

Abstract

The aim of this research was to determine the concentration of addition of red rice yeast that produces the optimum nutrient contents of the cassave flour fermented using red rice yeast various concentration. Analysis of nutrient content of the cassava flour including the measurement mosture content, crude fiber and ash content, lipid, carbohydrate and protein content, anrioxidant activity and cyanide acid content included as the complement. Data was analyzed by Rondomized Completely Block Design (RCBD) with fine treatment groups and five replicates. As the treatment groups are 0 % (as control), 10%, 14%, 17%, and 22%, for the replicates is time of replicates. This study performed that the addition of angkak effecting the nutrient content of the cassava flour fermented except the moisture content. Optimum nutrient content obtained on flour fermented with 14% of red rice yeast, which is the content of it's nutrition value shown as follows 8,59 ± 2,15% of moisture content, 2,35 ± 0,35% of ash, 12,42 ± 1,71% of crude fiber, 3,24 ± 1,06% of lipid, 34,78 ± 4,65% of carbohydrate, and 5,32 ± 0,96% of protein. Antioxidant activity of 23m77% found in 6000 µg/ml of methanol extract. The test showed negative test result for cyanide acid content.

Kata kunci : *red rice yeast, fermentation, cassava flour fermented*.